Data for Road Safety Consortium



Self-Declaration for Short-Term Road Works Warning Data

Document Version Control

Version	Date	Authors	Comments
1.0	06/09/2023	Group C	First Issue



Introduction

The mission of the European Data for Road Safety is to improve road safety by maximizing the reach of safety-related traffic information powered by safety data generated by vehicles and infrastructure.

The consortium consists of National Road Authorities, Vehicle Manufacturers and data providers.

The consortium members have signed a MULTI PARTY AGREEMENT to share data on a reciprocal basis to comply with the EU Directive 886/2013, which gives the following 8 data categories:



The purpose of this self-declaration is to give publishers of the Short-Term Road Works Warning data guidance about expected quality levels and label their data as such. Consumers of the data can then easily perceive the expected quality level.



Definitions

Event – Anomaly that has material impact on traffic. Attributes include timeliness and location (including start and end point and lane position). Start point for safety, end point for ADAS functions, lane position to help with exact position on carriageway.

Message - Single object that creates, updates or terminates an event.

Use Case Definition

"Short-term road works" means any temporary road works that are carried out on the road or on the side of the road and which are indicated only by minimum signing because of the short-term nature of these works."

- (EC Delegated Regulation No 886/2013)

The following events are considered to be "Short term road works":



(Safety related message sets – Selection of DATEX II Situations, DENM TPEG2-TEC Causes and TMC Events for EC high level Categories

Quality Level

For each provided message the DATEX II field "probabilityOfOccurence" should be used including one of the two parameters:

Level A:

Certain – Roadworks with a high confidence level (e.g. feedback from road operator, IoT device, camera, traffic flow). Can be used directly for informing the end user.

Level B:

Probable – Roadworks with a lower confidence level. Can be used as supporting data







Triggering Conditions

Whenever an event of short-term roadworks occurs, indicated by a placement of e.g. cones, signs, trailers etc. the following trigger conditions should apply and a DATEX II message should be published following the criteria below.

- Maximum delay between event start and message publishing must be;
 - less than 180 seconds (Level A)
 - within 1 hour (Level B)
- Docation of start- and endpoint should have a maximum offset of;
 - 25m (Level A)
 - 5km (Level B) For events without a defined start- and endpoint, the affected stretch of the road should be published (e.g. snowploughs, moving maintenance work)
- > Published message should include the affected lanes and if hard shoulder is affected as well.

Termination Conditions

Whenever an event of short-term roadworks is terminated, indicated by a complete removal of all items, the following termination criteria should apply:

- Maximum delay until termination message is published;
 - 180s (Level A)
 - 1h (Level B)

Updates

Whenever an event of short-term roadworks is updated e.g. location is changed, the following update criteria should apply:

- Maximum delay until update message is published
 - 180s (Level A)
 - 1h (Level B)

Message parameters

Every published message requires the following message parameters:

- Locations of short-term roadwork events should be published as openLR line strings or openLR point along line
- Timestamps should follow the common DATEX II standard
- "probabilityOfOccurence" parameter should be always populated (following section 3)



References

TISA, DFRS, DATEXII, C2CC (2021), "Safety related message sets – Selection of DATEX II Situations, DENM and TPEG2-TEC Causes and TMC Events for EC high level Categories", ITSTF20001 v1.5,

https://tisa.org/wp-content/uploads/ITSTF20001_SafetyrelatedMessage-Sets-DATEXII_DENM_ TPEG-TEC_TMC_-v1.5_FINAL-1.pdf









WSP has been acting as Tech Group Chair and coordinator for DFRS at the time of authoring this publication, as such WSP has provided the template for this publication.